

**Representative Erika Geiss
Summary of Testimony for HB 4206 & HB 4691
House Standing Committee on Health Policy
Tuesday, September 29, 2015**

House Bill 4206 is a bill that would establish Michigan standards for collecting, preparing, storing and providing human breast milk for infant consumption by both non-profit human milk banks and for-profit human milk banking companies.

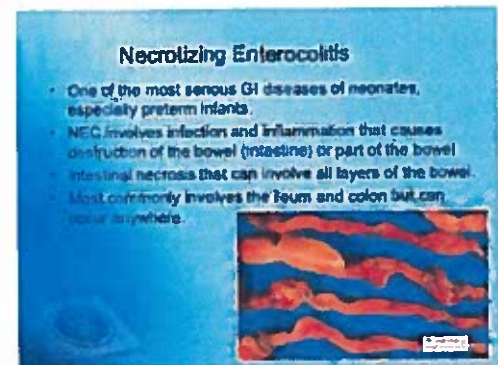
Four Key Reasons for HB 4206:

Reason 1: It directly addresses the tremendously high infant mortality rate in Michigan. (See data sets provided.) There are positive correlations between breastfeeding/human milk feeding and infant health.

Human breast milk is particularly important to premature infants with necrotizing enterocolitis (or NEC)—a dire gastrointestinal disease that afflicts many premature infants and is a leading cause of death in this age group. (NEC involves infection and inflammation that causes entire or partial intestinal destruction.)

Reason 2: House Bill 4206 will improve the overall health outcomes of these fragile premature infants by helping to ensure that NICUs can have access to safely and ethically collected human milk.

Reason 3: Given the improved health benefits of infants given a diet of human milk, another clear benefit of using donor/provider milk in the NICU setting is a reduction in the cost of both short-term and long-term medical care.



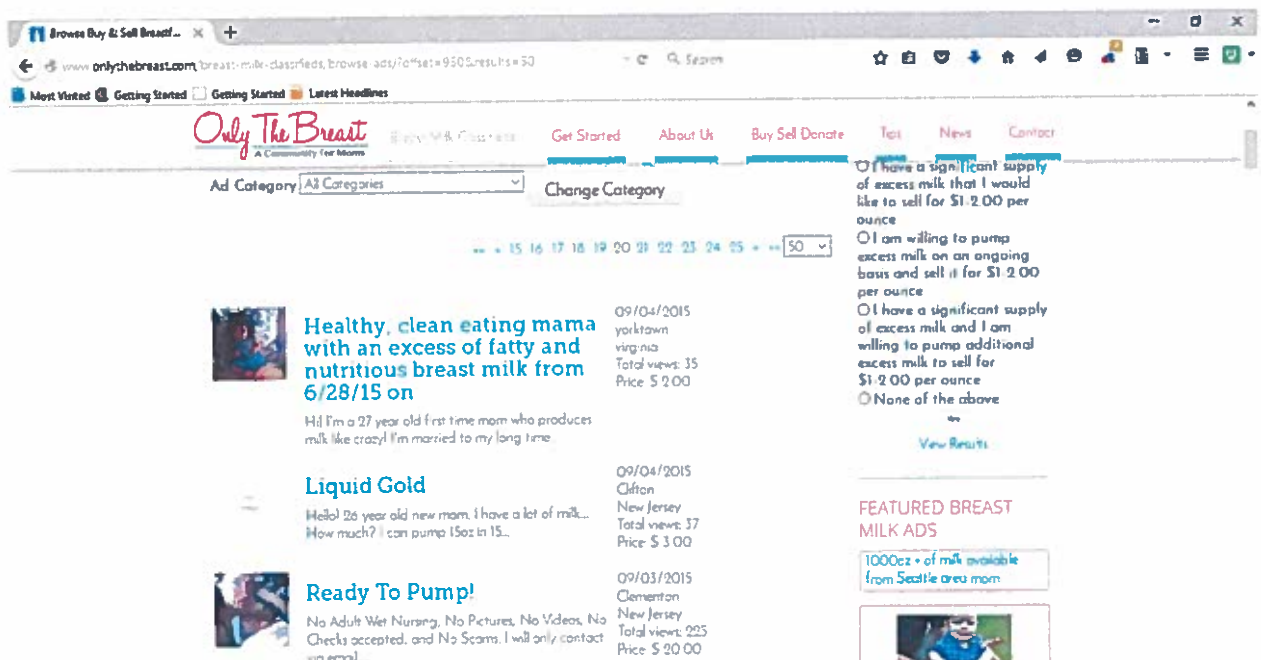
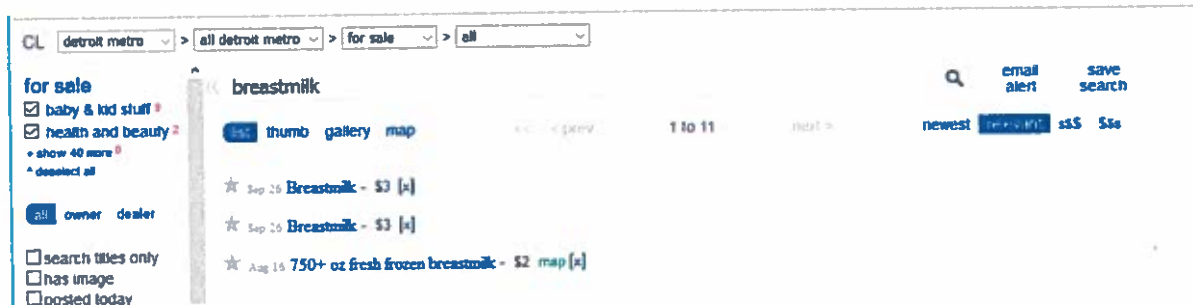
Reason 4: House Bill 4206 directly addresses the Surgeon General's 2011 *Call to Action to Support Breastfeeding* in which 20 critical action items were outlined, specifically, Action 12—identify and address obstacles to greater availability of safe banked donor milk for fragile infants.

Image Sources: Top Right: Alan Matthew Skaria via Slideshare.net retrieved from <http://www.slideshare.net/staralan/necrotizing-enterocolitis-14734571>

Bottom Right: "About NEC" from Prolacta Bioscience via <http://www.prolacta.com/necrotizing-enterocolitis>

Related to House Bill 4206 is **House Bill 4691**, which would amend the Michigan Food Law to prohibit the sale of human milk over the Internet, to further ensure the safety of sold expressed human breast milk.

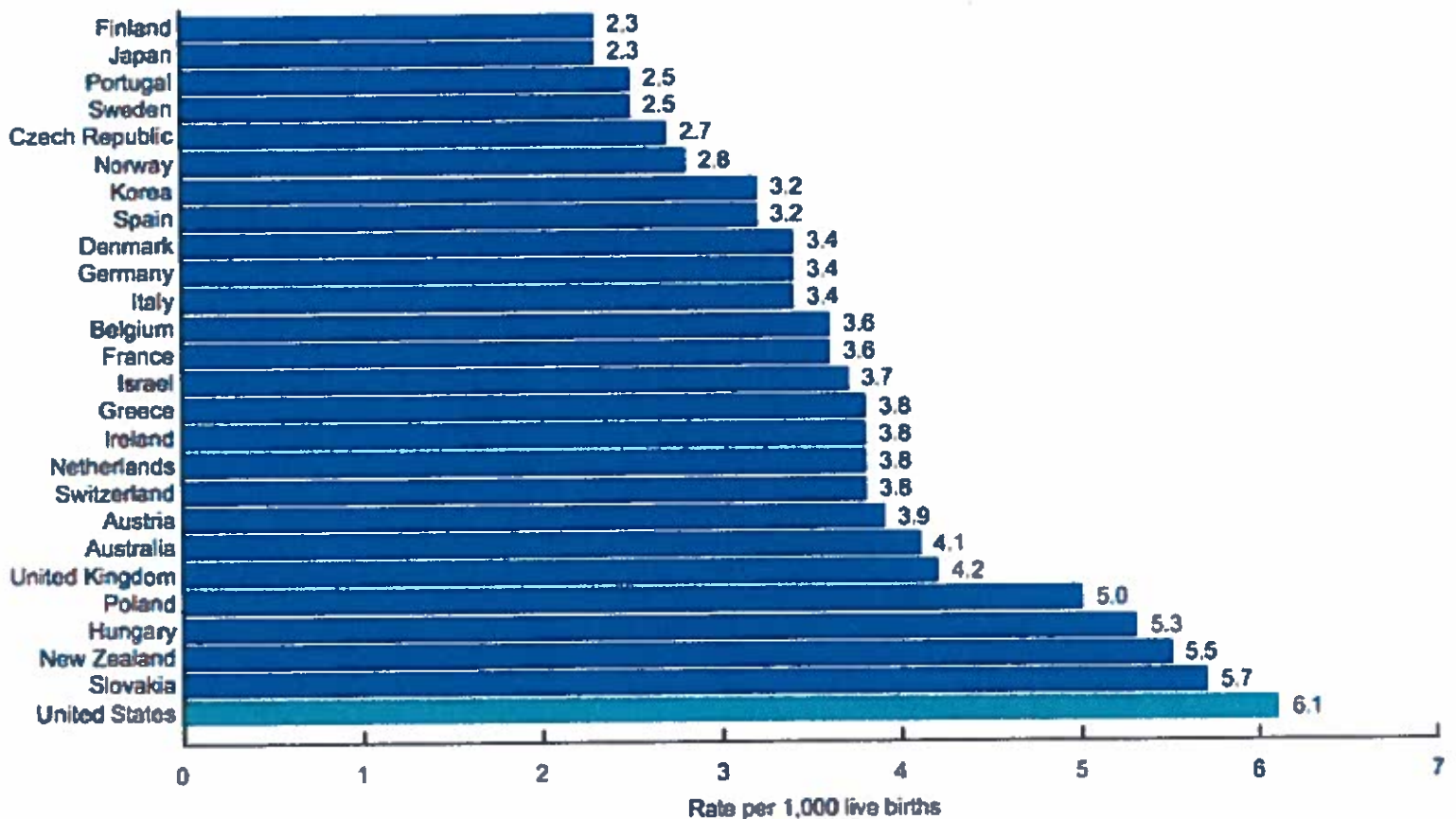
Screen captures of some recent Internet breast milk classifieds:



By the Numbers:

Infant Mortality, Premature Birth, Breastfeeding & Access to Human Milk

Infant Mortality by the Numbers: Country Rankings

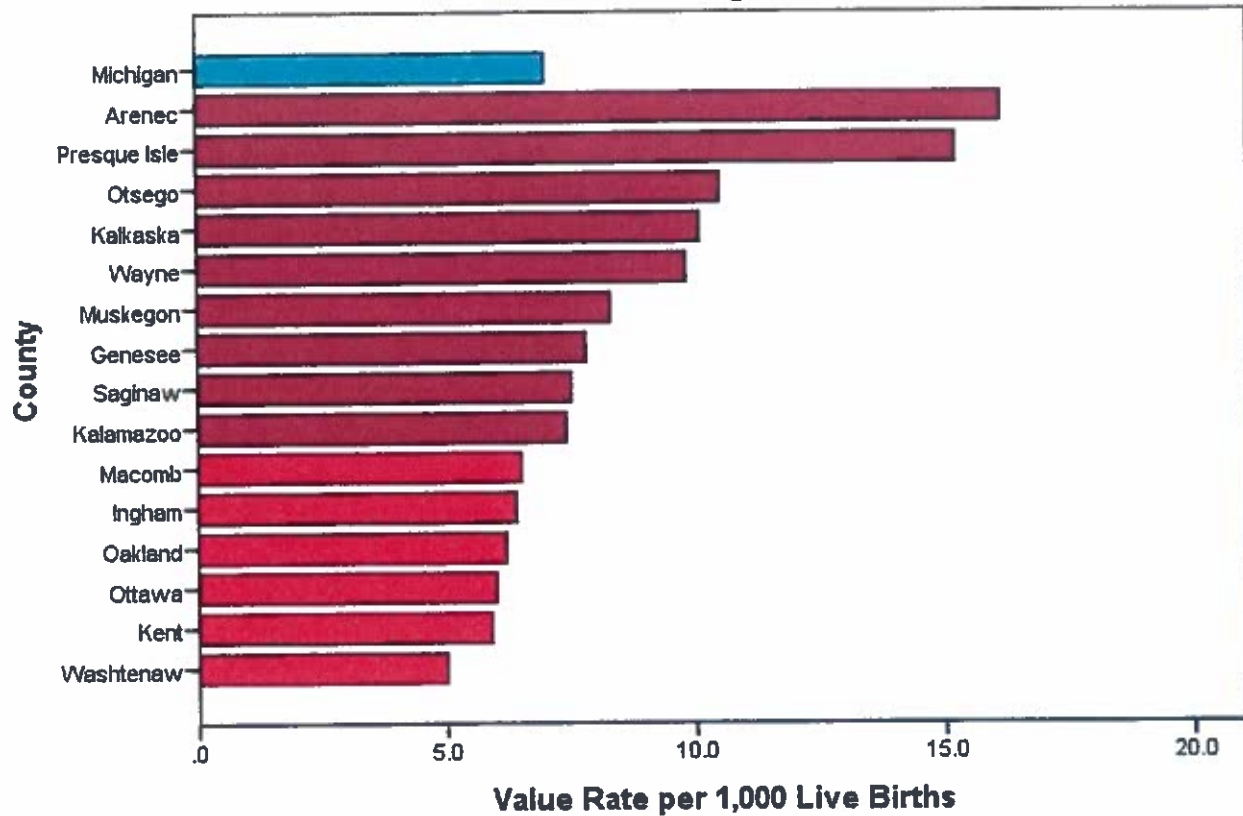


NOTES: Canada's 2010 data were not available from the Organisation for Economic Co-operation and Development (OECD) at the time of manuscript preparation. The 2009 infant mortality rate for Canada was 4.9. If the 2010 data for Canada had been available, the U.S. ranking may have changed. Deaths at all gestational ages are included, but countries may vary in completeness of reporting events at younger gestational ages.

SOURCES: CDC/NCHS, linked birth/infant death data set (U.S. data), and OECD 2014 (all other data). Data are available from: <http://www.oecd.org>

Infant Mortality Rate in Michigan Counties

2009-2013 Average

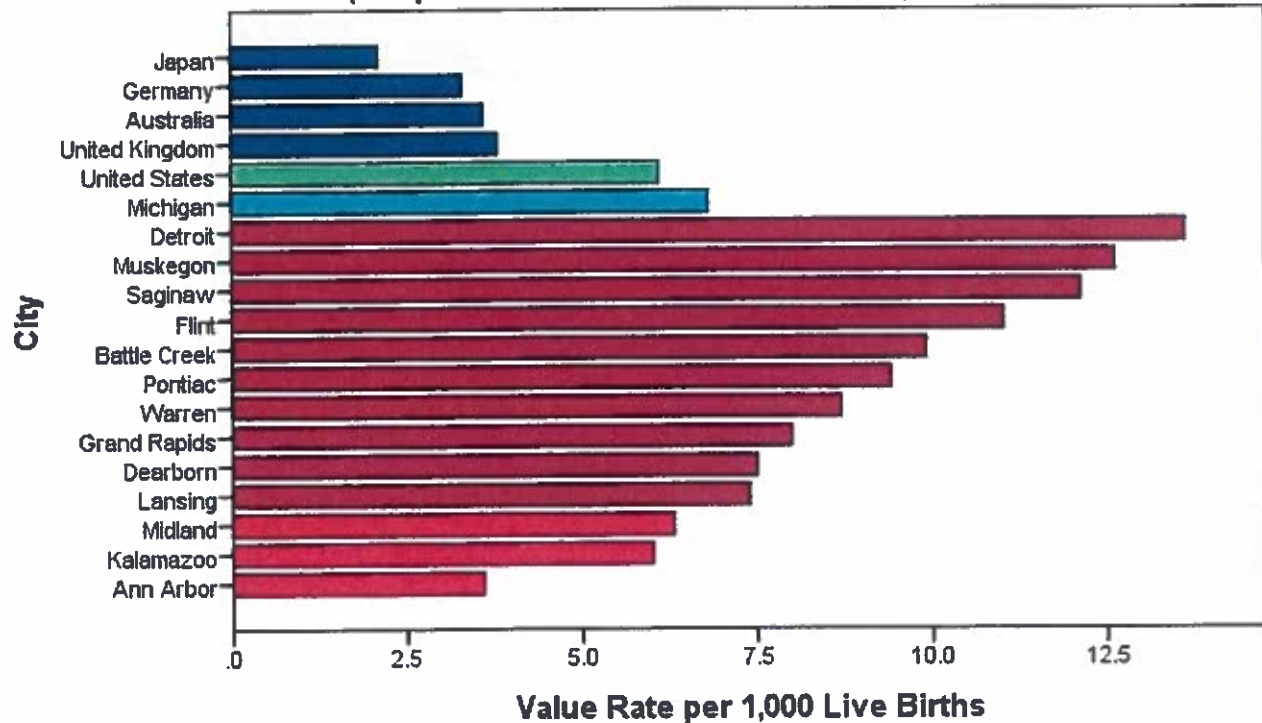


Data: Michigan Department of Health and Human Services

Infant Mortality Rates in Michigan's Largest Cities

2011-2013 Averages

(Compared to U.S. and International Rates)



Michigan Data: Michigan Department of Health and Human Services

International Data: OECD

By the Numbers: Premature Birth by Country

Country data and rankings for preterm birth data EMBARGO UNTIL MAY 2ND 2012

Linked to "Born too Soon: The Global Action Report on Preterm Birth" (add URL)

Preterm rate and births data from "National, regional and worldwide estimates of preterm birth rates in the year 2010 with time trends for selected countries since 1990: a systematic analysis and implications", Hannah Blencowe, Simon Cousens, Mikkel Z Oestergaard, Doris Chou, Ann-Beth Moller, Rajesh Narwal, Alma Adler, Claudia Vera Garcia, Sarah S Rohde, Late Say, Joy E. Lawn. Estimates for World Health Organization, 2012

Preterm deaths data based on Liu L, Johnson H, Cousens S, Perin J, Scott S, Lawn J. ... Black RG et al. Global, regional and national causes of child mortality: an updated systematic analysis. The Lancet - in press, 2012.

Country name	PRETERM BIRTHS (source Blencowe et al)						DEATHS DUE TO PRETERM BIRTH (source Li Liu et al)	
	Live births (2010)	Preterm birth rate (2010)	Rank for preterm birth rate (2010)	Number of preterm births (2010)	Rank for number of preterm births (2010)	Estimated Annual % change in preterm birth rates (1990 - 2010)	Deaths from complications of preterm birth (2010)	Rank for deaths due to complications of preterm birth (2010)
Afghanistan	1 385 200	11,5	66	159 900	18		21 200	9
Albania	409 000	9,0	110	3700	140	0,4	100	125
Algeria	714 400	7,4	147	52800	50		5 500	39
Turkey	1 288 300	12,0	56	155 400	19		5 200	42
Turkmenistan	109 000	9,8	98	10 700	101		1 000	79
Tuvalu	200	-	-	-	-		<50	185
Uganda	1 913 700	13,6	29	205 400	13		14 800	12
Ukraine	493 300	6,5	165	32 300	89	0,7	1 000	78
United Arab Emirates	91 500	7,8	140	8 000	117		200	120
United Kingdom	756 600	7,8	134	59 300	48	1,3	1 000	74
United Republic of Tanzania	1 862 300	11,4	69	213 100	12		17 100	13
United States of America	4 300 600	12,0	54	517 400	6	0,7	5 800	37
Uruguay	49 800	10,1	94	5 000	131	1,7	100	120
Uzbekistan	583 100	8,7	118	51 000	54		5 200	43
Vanuatu	7 100	12,9	39	900	163		<50	184
Venezuela (Bolivarian Republic of)	598 500	8,1	134	48 600	54	0,4	2 500	57
Viet Nam	1 466 600	9,4	103	138 300	21		5 900	36
Yemen	919 400	13,2	33	121 200	23		10 000	21
Zambia	599 600	12,9	37	77 600	37		6 800	32
Zimbabwe	373 900	16,6	4	61 900	45		3 700	49

Note that countries with average annual rate of change between 0,3 and -0,3 were considered as no change

Source: http://www.who.int/pmnch/media/news/2012/201204_borntoosoon_countryranking.pdf pp. 1-2

Note: Image has been cropped to get data to fit. For full data of all countries, visit source.

Country name	Color band	Live births (2010)	Preterm birth rate (%) (2010)	Estimated Annual % change in preterm birth rates (1990 - 2010)	Deaths from complications of preterm birth (2010)	Neonatal deaths (2010)	Per cent of births in health facility (%) (2006-2010)
Afghanistan		1 385 200	11,5		21 186	61 658	13
Albania		409 000	9,0	0,4	133	362	97
Algeria		714 400	7,4		5 476	13 040	95
Andorra		900	-		0	1	-
Uganda		1 913 700	13,6		14 776	38 993	41
Ukraine		493 300	6,5	0,7	960	29 62	99
United Arab Emirates		91 500	7,8		175	382	100
United Kingdom		756 600	7,8	1,3	1 000	2 415	-
United Republic of Tanzania		1 862 300	11,4		17 076	48 333	50
United States of America		4 300 600	12,0	0,7	5 776	18 289	-
Uruguay		49 800	10,1	1,7	108	779	-
Uzbekistan		583 100	8,7		5 184	13 495	97
Vanuatu		7 100	12,9		15	49	80
Venezuela (Bolivarian Republic of)		598 500	8,1	0,4	2 459	60 31	95
Viet Nam		1 466 600	9,4		5 892	18 020	64
Yemen		919 400	13,2		10 019	29 213	24
Zambia		599 600	12,9		6 790	18 220	48
Zimbabwe		373 900	16,6		3 727	10 103	65

Note that countries with average annual rate of change between 0,3 and -0,3 were considered as no change

	greater than 15%
	10-15%
	less than 10%
	no data available

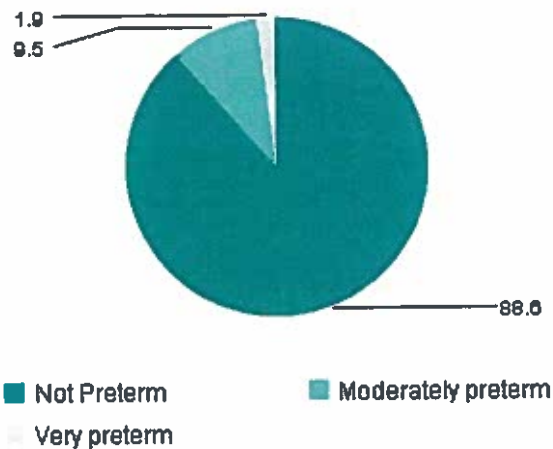
Source: http://www.who.int/pmnch/media/news/2012/201204_borntoosoon_countryranking.pdf pp. 3-4

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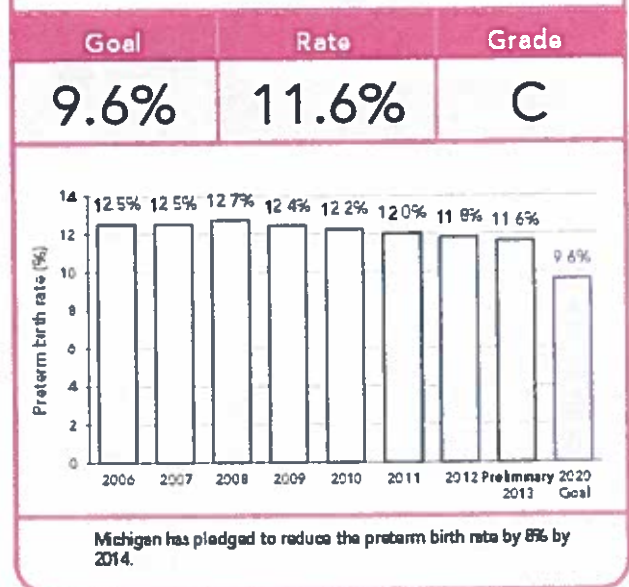
By the Numbers: Premature Birth U.S. & State Data

Distribution of gestational age categories: United States, 2013

Percent of live births



Michigan



Sources:

Top Left: 2013 Data from the March of Dimes: US has a preterm birthrate of 11.4% of live births.

<http://www.marchofdimes.org/Peristats/ViewSubtopic.aspx?reg=99&top=3&stop=55&lev=1&slev=1&obj=3>

Top Right: 2014 March of Dimes Premature Birth Report Card for Michigan preliminary data for 2013 including previous years.

<http://www.marchofdimes.org/peristats/pdfib/998/premature-birth-report-card-Michigan.pdf>

Preterm Births

Year(s): 4 selected | Data Type: All

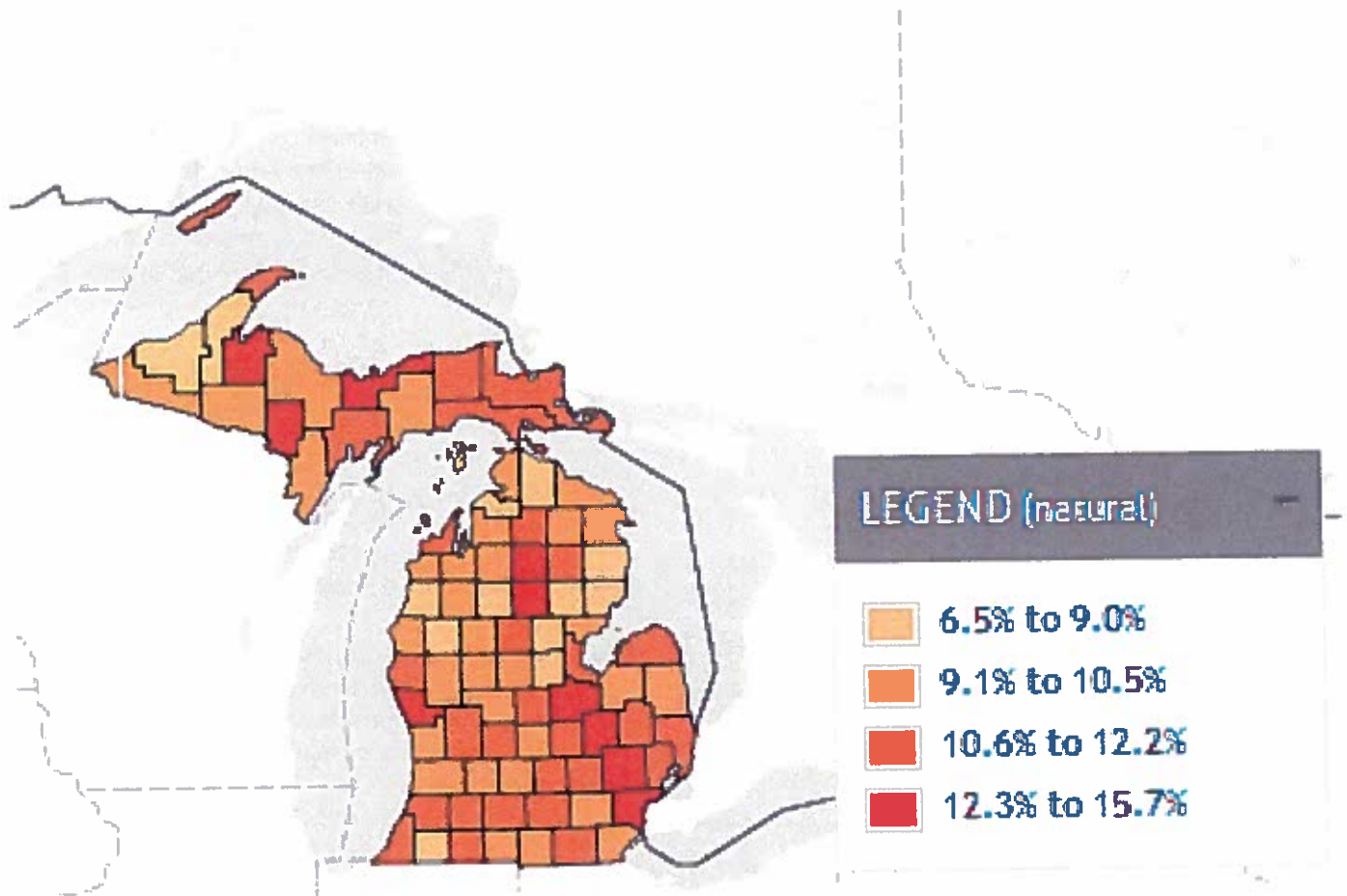
Data Provided by: Michigan League for Public Policy

Location	Data Type	2010	2011	2012	2013
Michigan	Number	11,928	12,263	13,015	13,843
	Percent	10.1%	10.6%	11.4%	12.2%

Source: Michigan League for Public Policy publication of data from Michigan Vital Statistics. Note: There is a slight discrepancy in numbers between the MLPP and March of Dimes data sets because MLPP factors preterm birth from 37 weeks gestation for this data whereas the March of Dimes includes preterm birth at fewer than 32 weeks gestation.

Visit <http://datacenter.kidscount.org/data/tables/1659-preterm-births?loc=24#detailed/2/any/false/36,868,867,133,38/any/3525,13069> for more data.

Premature Birth: County Data



Preterm births by Michigan County. Among the counties with the highest preterm birth (above the 2013 U.S. rate of 11.4% of all live births) are Alger, Baraga, Bay, Berrien, Clare, Crawford, Dickinson, Genesee, Lapeer, Mackinac, Macomb, Muskegon, Oakland, Roscomon, Saginaw, St. Clair, St. Joseph and Wayne. Close behind, at or near the state statistic are Huron, Ingham, Kent, Leelanau, Luce, Oceana, Oscoda, Otsego, Presque Isle, Sanilac, Shiawasee and Van Buren. Footnotes: These data are based on three-year averages, with the latest year listed. Births by county and city are based on the mother's residence.

Source: Michigan League for Public Policy publication of data from Michigan Vital Statistics.
Kids Count Report 2014

Visit <http://datacenter.kidscount.org/data/Map/1659-preterm-births?loc=24&loct=5#5/any/false/36/any/13069/Orange/> for more data.

Premature Birth: City Data

Location	Data Type	2010	2011	2012	2013
Allen Park	Percent	8.3%	10.2%	9.8%	11.5%
Bay City	Percent	9.4%	10.2%	11.1%	11.7%
Bloomfield Twp	Percent	9.8%	9.4%	10.1%	11.9%
Burton	Percent	11.2%	12.5%	12.7%	15.7%
Chesterfield Twp	Percent	9.0%	9.5%	10.6%	11.8%
Clinton Twp	Percent	9.2%	9.7%	11.2%	12.6%
Dearborn Heights	Percent	8.2%	9.4%	10.6%	12.2%
Detroit	Percent	14.3%	15.0%	17.0%	18.1%
Eastpointe	Percent	13.1%	14.0%	14.9%	16.3%
Farmington Hills	Percent	8.3%	9.6%	10.4%	11.7%
Flint	Percent	15.4%	16.6%	18.5%	20.6%
Flint Twp	Percent	9.7%	11.3%	13.7%	14.5%
Garden City	Percent	9.8%	11.8%	12.7%	13.2%
Grand Rapids	Percent	10.3%	11.1%	11.5%	12.1%
Highland Park	Percent	12.8%	15.5%	18.2%	19.5%
Inkster	Percent	14.3%	15.3%	15.6%	17.5%
Jackson	Percent	9.0%	9.1%	10.9%	12.2%
Lansing	Percent	12.7%	10.5%	10.8%	12.0%
Lincoln Park	Percent	9.0%	11.3%	12.2%	13.4%
Madison Heights	Percent	10.3%	10.6%	11.6%	12.2%
Muskegon	Percent	10.9%	11.9%	14.0%	15.1%
Novi	Percent	9.9%	10.2%	11.0%	12.2%
Oak Park	Percent	10.7%	12.0%	14.1%	15.6%
Orion Twp	Percent	7.3%	11.8%	10.9%	12.1%
Pontiac	Percent	13.8%	15.5%	18.0%	20.4%
Port Huron	Percent	13.7%	13.9%	13.8%	14.5%
Redford Twp	Percent	10.6%	12.0%	12.7%	14.6%
Rochester Hills	Percent	7.5%	9.0%	10.5%	12.1%
Roseville	Percent	8.9%	10.3%	12.0%	13.1%
Saginaw	Percent	12.9%	13.7%	14.3%	15.6%
Southfield	Percent	12.8%	14.3%	15.9%	16.3%
Taylor	Percent	11.6%	12.1%	13.8%	13.5%
Warren	Percent	10.4%	11.5%	13.3%	13.6%
Waterford Twp	Percent	9.3%	11.3%	12.2%	13.7%
West Bloomfield Twp	Percent	8.9%	9.7%	10.1%	11.9%
Westland	Percent	10.8%	10.3%	11.6%	12.5%
White Lake Twp	Percent	11.3%	12.4%	12.0%	12.6%
Ypsilanti Twp	Percent	9.7%	10.6%	11.2%	12.1%

Preterm births by Michigan cities at or above the 2013 U.S. preterm birth rate of 11.4% of all live births.

Close behind, within one percentage point of the Michigan rate include are Holland Township, Kalamazoo, Meridian Twp., Mt. Pleasant, Pittsfield Twp., Portage, Royal Oak, Saginaw Twp., St. Clair Shores, Shelby Twp., Southgate, Sterling Heights, Troy, Wyandotte and Wyoming.

Definitions: Live births with less than 37 weeks of gestation. The percent is based on total live births.

Data Source: Division for Vital Records and Health Statistics, Michigan Department of Community Health.

Footnotes: These data are based on three-year averages, with the latest year listed. Births by county and city are based on the mother's residence.

Source: Michigan League for Public Policy publication of data from Michigan Vital Statistics. Kids Count Report 2014

Visit <http://datacenter.kidscount.org/data/Tables/1659-preterm-births?loc=24&loct=3#detailed/3/58,3675,3678-3680,3682-3683,3686,3690-3694,3697-3698,3701-3702,3705-3706,3709,3713-3716,3720-3721,3723-3725,3727,3731,3734,3736-3740,3743/false/36,868,867,133/any/13069> for more data.

Breastfeeding by the Numbers



**U.S. Full-term newborns
breastfeeding at birth**

79%



**U.S. infants still
breastfeeding
at 6 months**

49%



**U.S. infants still
breastfeeding
at 12 months**

27%

Data source: Centers for Disease Control 2014 Breastfeeding Report Card. The most comprehensive aggregated data for breastfeeding statistics is 2011. Visit <http://www.cdc.gov/breastfeeding/pdf/2014breastfeedingreportcard.pdf> to view the full report.

Michigan and Other Great Lakes States (2011 data)

Great Lakes State	Breastfeeding initiation at birth	Breastfeeding at 6 months	Breastfeeding at 12 months	Exclusive breastfeeding at 3 months	Exclusive breastfeeding at 6 months
Illinois	77.4%	47.0%	26.1%	38.1%	18.2%
Indiana	74.1%	38.6%	21.5%	35.7%	18.1%
Michigan	75.3%	46.6%	23.3%	40.5%	16.2%
Minnesota	89.2%	59.2%	34.6%	48.5%	23.5%
New York	80.5%	55.8%	31.3%	37.1%	16.9%
Ohio	70.0%	42.1%	21.6%	35.5%	15.0%
Pennsylvania	72.9%	45.7%	26.1%	34.0%	15.3%
Wisconsin	83.5%	54.9%	26.2%	48.0%	21.4%

Data source: Centers for Disease Control 2014 Breastfeeding Report Card.

Visit <http://www.cdc.gov/breastfeeding/pdf/2014breastfeedingreportcard.pdf> to view the full report.



**2015: Michigan* infants
breastfeeding at birth**

62.84%



**MI infants still
breastfeeding
at 6 months**

10.04%



**MI infants still
breastfeeding
at 12 months**

1.33%

*Note: This data is from the Michigan Department of Health & Human Services Breastfeeding Rate and Duration Report for Spring 2015 for WIC participants and not for the whole state. The Department has been providing these data points since 2002.

Source: www.michigan.gov/documents/mdch/BF_Rate_and_Duration_Summary_Final_03202015_489074_7.pdf

By the Numbers: Access to Human Milk

16

Number of Milk Banks in the U.S. that are part of the Human Milk Bank Association of North America (HMBANA).

1

Number of HMBANA Milk Banks in Michigan that service the entire state.

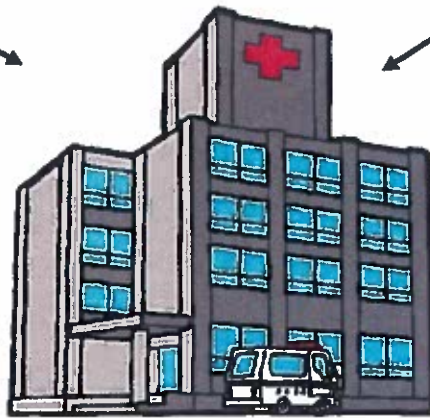
1

Number of Human Milk Banking Companies in Michigan with an established hospital clientele.

Both provide to hospital NICUs

Number of Michigan Hospitals using HMBANA donor milk.

11+



Number of Michigan Hospitals using Human Milk & HMF products.

6

4

Current number of existing or developing for-profit companies in the "Human Milk Industry"

U.S September 2015
Human-milk-for-sale
Internet Classifieds:

1184+
(24 from Michigan)

Breastmilk classified
contaminated with
microbes/bacteria
(2013 study)



74%

10%

Breastmilk classified
with milk containing
additional substances
(2015 study)

